

XI. *On some new genera and species of Tenthredinidæ.*

By P. CAMERON.

[Read March 6th, 1878.]

TAXONUS.

Taxonus longipennis, sp. n.

♀. Antennæ as long as the abdomen, covered with a short close pile; the middle joints thicker than the basal and apical ones; the 3rd and 4th joints nearly equal, the others becoming gradually shorter; the colour black. Head black, small, narrower than the mesothorax, the front depressed, smooth and shining, the sutures scarcely visible, the clypeus truncated at apex, the labrum rounded. Thorax red, a small spot on the front of the mesonotum, the posterior half of the sternum and of the pleuræ (except above) black; the cenchri white. Abdomen much longer than the head and thorax, rounded, black, with a bluish tinge; the apex semi-truncated; the saw not exerted. Legs bluish-black, the tibiæ and the basal joints of the tarsi grooved, punctured; the basal joint of the tarsus is as long as the other four; the tarsus itself being longer than the tibia; the calvari are short. Wings longer than the body, narrow. The first marginal cellule is rather narrow, longer than the second; the nervure is straight and issues from near the apex of the long thin stigma. The first submarginal cellule is small; the second is double the length of the first, and has a small horny point near its centre; the third is more than double the length of the second, and is very slightly wider at the apex than at the base; the fourth is shorter than the third, and is considerably widened at the apex. The first recurrent nervure is received a little in front of the second submarginal cellule; the second in the basal fourth of the third. The colour is blackish, with a hyaline space a little in front of the first recurrent nervure, and another hyaline band proceeds from the stigma to the other side of the wings where it becomes narrowed. The posterior wings are blackish at the base, faintly fuscous at

the apex and hyaline in the middle. In the apex of the posterior wings is a well-marked appendicular cellule.

Length nearly 6 lines; alar exp. nearly 14 lines.

Hab.—Brazil.

In many respects this remarkable species differs from the ordinary species of *Taxonus*, but more especially in the form of the abdomen and in the relative lengths of the cellules in the anterior wings, which agree better with those of *Strongylogaster*; but in the form of the lanceolate cellule and in the neuration of the posterior wings, and, perhaps, also in the antennæ, it comes nearer to *Taxonus*. If it does not belong to that genus there is no other described in which it can be placed. In some of the species of *Taxonus* there is an appendicular cellule in the posterior wings.

ZARCA, gen. nov.

Antennæ densely pilose, 9-jointed, the 1st a half longer than the 2nd, with a slight pedicle at its base, the 3rd the longest, a quarter longer than the 4th, the succeeding joints become gradually shorter; the apical is sharply conical, much thinner than the 8th; the 4th, 5th and 6th are much thicker than the others; the three apical are closely packed together. The antennæ are placed immediately over the clypeus, which is very small, and over each is a large, projecting, somewhat oval tubercle. The palpi are very long. The eyes reach the base of the mandibles. The thorax has the sutures deep, the collar well developed: the scutellum is small, globular, and does not reach the elevation of the sutures on the mesonotum. The abdomen is somewhat cylindrical and ends in a sharp point; the saw projects considerably. The legs are rather long, the posterior pair being longer than the whole body; the coxæ are large, projecting, the posterior pair reaching to the fourth abdominal segment, so that the abdomen appears very short, looking at it from beneath; the tarsi are much longer than the tibiæ; its 1st joint is longer than all the others, deeply grooved and flattened on the lower surface; the 2nd joint is a little longer than the 3rd, the 4th is very small; and the 5th is nearly as long as the preceding two, and bears single, short claws. Wings with two marginal and four submarginal cellules. The marginal are nearly equal, the second having a nervure proceeding round its upper margin from the stigma to the end of the

cellule; the marginal nervure is joined to the third submarginal, and is a little curved. The first submarginal is not half the size of the second, which is of nearly the same length as the third, but the latter is very much wider at its apex than the second, which is of nearly equal width throughout; the fourth is longer than the third, and is much widened at the apex. The first recurrent nervure is received a little in front of the middle of the second cellule, the second is joined to the second submarginal nervure. The lancolate cellule is petiolate. There is one medial cellule in the posterior wings; at the apex is a small curved appendicular cellule.

In the alar neuration this genus does not differ much from *Blennocampa*, but otherwise is readily separated by the pilose antennæ thickened in the middle, by the large projecting coxæ (which are as large as in *Macrophya*), by the long legs, with the very long basal tarsal joint, and perhaps, also, in the appendicular cellule in the posterior wings, although we have some indications of this in some species of *Blennocampa*. The pronotum, also, is longer and more developed, and the lobes of the mesonotum are better marked.

Zarca apicalis, sp. n.

Pilose, smooth, shining, luteous; the antennæ, head, tibiæ, tarsi and apex of abdomen, black. Wings blackish, iridescent; the nervures, costa and stigma, black, the last two parts being very pilose; in the second submarginal cellule is a horny point. The two anterior tibiæ are sordid luteous, the mandibles are piceous, and the palpi pale testaceous. The tegulæ are luteous.

Length $4\frac{1}{2}$ lines; alar exp. $12\frac{1}{2}$ lines.

Hab.—Brazil (Swainson).

INCALIA, gen. nov.

Antennæ of the length of the mesothorax, thickish, but scarcely thickened towards the apex; densely covered with a long pile; 7-jointed, the 1st joint is cylindrical, and more than double the length of the 2nd, and nearly a fourth shorter than the 3rd, which is the longest; the 4th is about the length of the 1st; the three last are closely joined together, the 7th being a very little longer than the others, and conical. The head is rather narrow, truncated behind; the eyes projecting, reaching to near the

base of the mandibles. The antennæ are situated immediately over the clypeus, which is small, and broadly but not deeply incised; the labrum is large, broad, and semi-truncated at the apex. The thorax is globular; the lobes of the mesonotum are very distinct; the scutellum is broad, almost truncated in front, narrowed and rounded behind, and distinctly separated from the surrounding parts, overhanging the cenchri. Abdomen longer than the head and thorax, carinated in the middle above, and semi-truncated at the apex. Legs moderately long; the posterior tibiae bear a single spine near the middle; the tarsi are a little longer than the tibiae; the basal joint is longer than all the others combined; the three following are nearly equal; the last is as long as the preceding three, and terminated in long curved sharp single claws. The wings have one marginal and four submarginal cellules; the first submarginal is small, the second a very little longer, and receives a recurrent nervure near its centre; the third is a quarter longer than the second, and forms nearly a parallelogram, and receives one recurrent nervure; the fourth is longer than all the rest. The marginal cellule has a nervure surrounding its upper border, and which forms at its termination a very small appendicular cellule. In the posterior wings there is also a surrounding nervure, ending in an appendicular cellule, which is slightly better marked than the one in the upper wings. There is one dividing nervure in the middle cellule (in the posterior wing) as in *Cephalocera*.

In some respects this genus comes very near to *Cephalocera*, but it may be at once distinguished therefrom by the pilose, non-clavate antennæ, the last joint especially being conical, and if anything thinner than the 6th; while in *Cephalocera* the 7th joint is thickened out into a distinct club, the joints being also bare. There is also an appendicular cellule in the posterior wing, while there is none in the other.

Beyond the non-clavate antennæ I see no reason why this genus should not be included among the *Cimbicina*, if *Cephalocera* and *Syzygonia* are to be included among them. *Incalia* forms a connecting link with the *Hylotomina*.

Incalia hirticornis, sp. n.

♀. Pilose, shining, purplish-black; thorax (except metathorax above) luteous; head deep metallic blue; the

clypeus, labrum and mouth pale luteous. Wings deep purplish-black, with a few small "bullæ," *i. e.* transparent spots. Legs densely pilose.

Length 5 lines; alar exp. $12\frac{1}{4}$ lines.

Hab.—Ega, Brazil.

DIELOCERA, Curtis.

The antennæ are short, 3-jointed; the 1st joint double the size of the 2nd, truncated at its apex; the 3rd is the longest, and is grooved and keeled on the underside. Head narrower than the pronotum; the frontal sutures and antennal foveæ deep. Wings with one marginal, and four submarginal cellules, the former with a small appendicular cellule at its apex. The first submarginal cellule is small; the second long, narrow, and a little curved; the third small, not much longer than the first; the fourth is longer and very much wider than the three preceding. The second cellule receives two recurrent nervures. The lanceolate cellule and the posterior wings are as in *Hylotoma*. The legs are short and thick, the tibiæ have no spines, nor calcaria, and are a little longer than the femora; the tarsi are a fourth shorter than the tibiæ. The first tarsal joint is as long as the succeeding three, which are of equal size, and have the apices truncated; the last is as long as the preceding two, and is shaped like a closed fist, and bears on each side short single claws. The patellæ are hollow leaf-like conical expansions. The abdomen is broad, thick and truncated.

Dielocera sulcicornis, sp. n.

♀. Luteous, smooth, shining, three irregular spots on the vertex, the mesonotum (except two irregular luteous spots in front), metanotum, the basal third of the back of the abdomen, the sides of the posterior tibiæ and of the basal joints of the posterior tarsi, black. Wings blackish, clear hyaline at the marginal cellule. The cenchri are large and clear white.

Length $5\frac{1}{2}$ lines; alar exp. 13 lines.

Hab.—Prainha, Lower Amazons. November (Prof. Trail).

The above description refers only to *D. sulcicornis*, for the typical *D. Ellisii* differs from it in many respects, and I think that *sulcicornis* may well be regarded as the

type of a new genus. Both belong to Klug's section ii., which is distinguished by having four submarginal cellules, the marginal having also an appendicular cellule. Klug describes one species as having the antennæ forked in the ♂, and in another species he describes the antennæ as furrowed in the ♀; but he makes no mention of the structure of the tarsi, nor of the absence of calcaria. Klug further says, that the species placed by him in this section are not very naturally related beyond the similarity in the alar neururation, and even with this the situation of the recurrent nervures does not agree in all the forms.

Compared with *sulvicornis*, *D. Ellisii* has the antennæ longer and thinner, the clypeus has a much deeper incision, and it is also emarginated at the sides, the abdomen is longer and rounded at the apex; the tibiæ have short, sharp spurs, the tarsi are of the normal form, as are also the patellæ, while the claws are long, sharp and bifid. The appendicular cellule is shorter and narrower.

Diolocera (?) *crassicornis*, sp. n.

♀. Black, smooth, shining, the mesonotum with the scutellum red; the anterior tibiæ piccous in front. Wings infuscated, clearer at the apex.

Length $3\frac{1}{4}$ lines; alar exp. $6\frac{3}{4}$ lines.

Similar to *Hylotoma ehippiata*, Kl., but larger; the antennæ not reddish at the base, the anterior legs with only the tibiæ pale in front, &c. The basal joint of the tarsus is as long as all the others combined.

Hab.—Amazons.

This species apparently also belongs to Klug's second section, but it differs from *D. Ellisii* and *sulvicornis* in the first and second submarginal cellules receiving each a recurrent nervure instead of the second receiving both; the antennæ are thicker in proportion, thick, pilose, and not grooved. The calcaria are moderately long.

Obs.—It seems to me that the insect which Curtis described (Trans. Linn. Soc. xix. 250) as the ♂ of *D. Ellisii* has no relationship with that species. This conclusion I base on the great differences between the two, and besides, the evidence which Curtis gives of their connection is not very decisive. He says (p. 249), "On looking over this collection I saw two insects which were stated to be the two sexes, taken from a nest in an accom-

panying box, in which also I found a ♀ fly." Farther on (p. 251) he mentions that there were only three males to twenty females. The ♀ belongs to Klug's second section, while the ♂ belongs to the fifth; that is to say, it has only three submarginal cellules. In the ♂, also, the clypeus is not nearly so deeply notched; the head is bluish-black, with the exception of the mouth, the meso- and metathorax bluish-black above, the posterior tibiæ are pale red; the first tarsal joint is longer. Besides the above-mentioned differences in the alar neuration in the ♂, the wings are clear hyaline instead of having three distinct-clouded bands. No doubt, as Curtis points out, the sexes in some species of *Tenthredinidæ* differ very much, but I know of no case where we have so many different marks of distinction, while in the other species of the *Hylotomides* we have not, so far as I can remember, any great diversity in coloration, and certainly none in structure. Although, then, I cannot consider them to be the sexes of the same insect, still they agree so closely in their generic characters that I think they may both be placed in the same genus. It is clear that the ♀ must be regarded as the type of the genus, as the descriptions of the mouth-organs, &c., were taken from four female specimens. The ♂ I propose to name

Diolocera Curtisi, sp. n.

♂. Bluish-black, the mouth, palpi, basal joint of antennæ, pronotum, thorax beneath, and legs red; the tibiæ and tarsi pale white at the base; the posterior tarsi with the tips fuscous. Wings clear hyaline. Antennæ forked, densely pilose.

Length $5\frac{1}{2}$ lines; alar exp. 11 lines.

Hab.—Brazil.

The *Hylotoma formosa* of Klug resembles this species in some respects, but it has the posterior legs black, and the wings are clouded at the middle and apex.

Diolocera carbonaria, sp. n.

♀. Antennæ compressed, sabre-shaped, bare, the two basal joints very closely united, the second very small and truncated at the apex. Epistoma carinated, the carina spreading out on each side above the antennæ; the clypeus large, with a shallow emargination; labrum small. Wings with one marginal and three submarginal cellules;

the first submarginal is very long and narrow, receiving two recurrent nervures, one near its centre, the other a little in front of the first submarginal nervure; the second cellule is not much shorter than the first above, but is very much shorter on the lower side; the second submarginal nervure is very much curved, and from near its upper part there issues a short prolongation, where the curve bends down towards the base of the wing (a similar projection is present in *Diolocera crassicornis*, m., as well as in the very different genus *Pterygophorus*). The legs have longish spurs. The marginal cellule is appendiculated.

Black, smooth, shining, scarcely pubescent, the anterior tibiae and tarsi fuscous in front. Wings clear hyaline, blackish at the base, fuscous at the apex, and a broad irregular fuscous band proceeds across the middle from the stigma. The apical half of the posterior wing is fuscous; the costa, stigma, and nervures are black.

Length $3\frac{1}{2}$ lines; alar exp. 9 lines.

Hab.—Villa Nova, Brazil.

Except in having only three submarginal nervures this insect agrees very well otherwise with *D. crassicornis*. *D. Curtisi* differs from it in having the second submarginal cellule very much smaller; the first and second submarginal nervures are scarcely curved, the incision in the clypeus is deeper and narrower. The checks are more projecting, and the calcaria are shorter. *Carbonaria* appears also to come near to the genus *Themos*, Norton, but that has not the marginal cellule appendiculated.

I hope to prepare shortly a generic revision of the South American *Hylotomides*.

TRAILIA,* gen. nov.

= *Hylotoma*, section 8, Klug. Jahrb. p. 249.

Antennæ about half the length of the body, densely pilose, the second basal joints small, of nearly equal size; the third slightly thickened at the middle, the apex conical. Head small, front carinated, the carina spreading out on each side. Wings with one marginal (which has

* I have named this genus after my friend Professor Trail.

no appendicular cellule) and three submarginal cellules. The first submarginal cellule is long and narrow, and receives near its apex one recurrent nervure; the second is shorter and broader than the first, and is a fourth longer on the upper than on the lower side, through the second submarginal sloping towards the base of the wing, and it receives a recurrent nervure near its apex. The lanceolate cellule and the posterior wings are as in *Cyphona*.

This genus comes near to *Cyphona*, but differs in its long, densely pilose antennæ, in having only three submarginal cellules, and in its more globular head.

Trailia urcacensis, sp. n.

♀. Antennæ black, the basal joint pale luteous. Head pale luteous, the tips of the mandibles piceous. Thorax and abdomen pale luteous, except a small black spot over the anus; pilose: the sheaths of the saws projecting. Legs pale luteous, the tarsi and apical half of posterior tibiæ blackish; the spurs long and curved. Wings hyaline, clouded at the apex; the costa and stigma black, and densely pilose.

Length $2\frac{3}{4}$ lines; alar exp. $5\frac{1}{2}$ lines.

Hab.—Urcaca, Rio Purus, Amazons. November (Prof. Trail).

Trailia analis, sp. n.

♀. Luteous, pilose, the antennæ (except the two basal joints), the head (except the mouth), the greater part of the mesonotum, the anal segment, the apex of posterior tibiæ and the posterior tarsi, black; the mandibles are piceous. Wings hyaline with a yellowish tinge; the costa and stigma pilose, pale luteous; the base and the apex of the wings from the stigma deeply infuscated.

Length 4 lines; alar exp. 9 lines.

Hab.—Brazil.

The antennæ are longer than in the preceding species, and have the apices more sharply pointed. The calcaria are pale luteous.

Trailia compressicornis, sp. n.

♀. Luteous, and covered with a fine, close whitish pile, the antennæ, the head (except the mouth), the tibiæ and tarsi, black. Wings deep black; the tegulæ and costa at

the extreme base, luteous. At the apex of the first submarginal cellule is a large, black horny point.

Length $3\frac{1}{4}$ lines; alar exp. 9 lines.

Hab.—Brazil.

The antennæ are strongly compressed and only slightly pilose; the head is small, and closely attached to the pronotum, and the front is only slightly carinated.

Trailia nigro-lineata, sp. n.

♀. Pale reddish, the antennæ (except the two basal joints beneath), the head (except the part below the antennæ), and a line on the outer side of the four posterior tibiæ and tarsi, black. Wings blackish, hyaline at the apex, and there is an irregular clear line in the first submarginal cellule; the costa is luteous at the base.

Length $4\frac{1}{2}$ lines; alar exp. $9\frac{3}{4}$ lines.

Hab.—Bahia.

Comes near to *Hylotoma præcox*, Kl. (also from Bahia), but it is readily known from it by the reddish pleuræ and sternum, the hyaline apex of the wings, and the black-lined tibiæ and tarsi.

The antennæ are a little compressed, and moderately covered with a pale pile. The anterior tibiæ have the extreme apex black on the outside, and the two posterior nearly the whole. The posterior tarsi are black, the anterior only black at the apex. The mandibles are picceous.

RUSOBRIA, gen. nov.

= Klug's, section 4, of *Hylotoma*. *Yahrb.* p. 245.

Antennæ somewhat compressed, densely covered with long hair. Epistoma keeled. Wings with one marginal (having an appendicular cellule) and three submarginal cellules; the first submarginal cellule long, and it receives a recurrent nervure; the second small, receiving also a recurrent nervure. The lanceolate cellule is contracted, the basal nervure being very short. The posterior wings are as in *Cyphona*. The calcaria are long.

In the form of the antennæ and of the head *Rusobria* agrees with *Trailia*, but differs otherwise in having an appendicular cellule, and in having the lanceolate cellule constricted. The antennæ in the males are forked (*teste* Klug).

Rusobria megaptera, sp. n.

♀. Shortly pilose, smooth, shining, red; the antennæ, head, the abdomen (except the basal segment), the posterior coxæ, femora and base of tibiæ, the middle coxæ at the apex, a line on the femora, and on the base of tibiæ, black; the tibiæ and tarsi clear white; the apical joint of the tarsi blackish. Wings yellowish; the apical third, and the posterior, except the upper basal and middle parts, black. The nervures (except on the black parts of the wings), costa and stigma, yellow.

Length $4\frac{3}{4}$ lines; alar exp. 11 lines.

Hab.—Brazil (Swainson).

The antennæ are, properly speaking, fuscous, as is also part of the abdomen; but this is probably owing to the original black colour having faded through age.

Rusobria carinata, sp. n.

♀. Pilose, shining, luteous, the antennæ, the head (except the part below the antennæ), the greater part of the mesonotum, the sternum at the sides and the lower parts of the pleuræ, and the three apical segments of the abdomen, black. Wings hyaline; the basal part, a broad band across the middle from the stigma and the apex, black; the posterior wings are black only at the base and apex. The mandibles are blackish; the stigma, and the costa at the base and apex are also black. The scutellum is yellow. The epistoma is very sharply carinated.

Length $3\frac{1}{4}$ lines; alar exp. 8 lines.

Hab.—Brazil.

Rusobria leucosoma, sp. n.

♀. Pilose, luteous, the head (except below the antennæ), the greater part of the mesonotum, with the basal half of the scutellum, the apex of posterior tibiæ and tarsi, as well as the two apical segments of the abdomen, black. Wings hyaline, blackish at base and apex; the stigma is yellow; the mouth white.

Length 3 lines; alar exp. $7\frac{1}{4}$ lines.

Hab.—Amazonia.

Very similar to the preceding species, but smaller; the

mandibles white; the pleuræ and sternum luteous, the hinder tarsi black; and the wings hyaline in the middle, with only two blackish stripes.

I have to express my indebtedness to my friend Mr. Frederick Smith for the examination of the above-described species, and to Professor Trail for presenting me with *D. sulicornis* and *T. urcacensis*, both captured by himself.